

OHS19310

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MDL INFORMATION SYSTEMS, INC.
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EMERGENCY TELEPHONE NUMBER:
1-800-424-9300 (NORTH AMERICA)
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SUBSTANCE: POTASSIUM CHLORIDE

TRADE NAMES/SYNONYMS:

POTASSIUM CHLORIDE (KCL); CHLOROPOTASSURIL; ENSEAL; KALITABS; KAON-CL;
KLOTRIX; NEOBAKASAL; POTASSIUM MONOCHLORIDE; POTAVESCENT; REKAWAN; SLOW K;
SUPER K; SUPER K (SALT); POTASSIUM MURIATE; KALEORID; PFIKLOR; SPAN-K; P-217,
P-330; ClK; OHS19310; RTECS TS8050000

CHEMICAL FAMILY: inorganic, salt

CREATION DATE: Dec 17 1984

REVISION DATE: Mar 22 2001

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: POTASSIUM CHLORIDE
CAS NUMBER: 7447-40-7
EC NUMBER (EINECS): 231-211-8
PERCENTAGE: 100

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=0 FIRE=0 REACTIVITY=0

EMERGENCY OVERVIEW:

COLOR: colorless to white

PHYSICAL FORM: powder, crystals

ODOR: odorless

MAJOR HEALTH HAZARDS: No significant target effects reported.

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: no information on significant adverse effects

SKIN CONTACT:

SHORT TERM EXPOSURE: mild irritation

LONG TERM EXPOSURE: no information is available

EYE CONTACT:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: no information is available

INGESTION:

SHORT TERM EXPOSURE: vomiting, digestive disorders, irregular heartbeat, dizziness, kidney damage, paralysis, convulsions

LONG TERM EXPOSURE: same as effects reported in short term exposure, rash

CARCINOGEN STATUS:

OSHA: No

NTP: No

IARC: No

SECTION 4 FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

SKIN CONTACT: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

INGESTION: If a large amount is swallowed, get medical attention.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire hazard.

EXTINGUISHING MEDIA: Use extinguishing agents appropriate for surrounding fire.

FIRE FIGHTING: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SECTION 6 ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:

Collect spilled material in appropriate container for disposal.

SECTION 7 HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

POTASSIUM CHLORIDE:

No occupational exposure limits established.

VENTILATION: Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.

Any dust, mist, and fume respirator.

Any air-purifying respirator with a high-efficiency particulate filter.

Any powered, air-purifying respirator with a dust, mist, and fume filter.

Any powered, air-purifying respirator with a high-efficiency particulate filter.

For Unknown Concentrations or Immediately Dangerous to Life or Health -

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Any self-contained breathing apparatus with a full facepiece.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: solid

COLOR: colorless to white
PHYSICAL FORM: powder, crystals
ODOR: odorless
TASTE: salty taste
MOLECULAR WEIGHT: 74.55
MOLECULAR FORMULA: K-Cl
BOILING POINT: Not applicable
MELTING POINT: 1418 F (770 C)
SUBLIMATION POINT: 2732 F (1500 C)
VAPOR PRESSURE: Not applicable
VAPOR DENSITY: Not applicable
SPECIFIC GRAVITY (water=1): 1.984
WATER SOLUBILITY: 23.8% @ 20 C
PH: 5.4-8.6 (5% solution)
VOLATILITY: Not applicable
ODOR THRESHOLD: Not available
EVAPORATION RATE: Not applicable
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available
SOLVENT SOLUBILITY:
 Soluble: glycerol, alkali, ether
 Slightly Soluble: alcohol
 Insoluble: acetone

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: None reported.

INCOMPATIBILITIES: acids, halogens, metals

POTASSIUM CHLORIDE:

ACIDS (STRONG): May release toxic chloride gases.

BROMINE TRIFLUORIDE: May react violently.

STEEL: May be corrosive when wet.

SULFURIC ACID AND POTASSIUM PERMANGANATE: Possible explosion.

HAZARDOUS DECOMPOSITION:

Thermal decomposition products: chlorine

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

POTASSIUM CHLORIDE:

IRRITATION DATA:

500 mg/24 hour(s) eyes-rabbit mild

TOXICITY DATA:

938 mg/kg/2 day(s) oral-infant LDLo; 60 mg/kg/1 day(s) oral-woman TDLo; 20 mg/kg oral-man LDLo; 2600 mg/kg oral-rat LD50; 660 mg/kg intraperitoneal-rat LD50; 142 mg/kg intravenous-rat LD50; 1500 mg/kg oral-mouse LD50; 620 mg/kg intraperitoneal-mouse LD50; 117 mg/kg intravenous-mouse LD50; 2500 mg/kg oral-guinea pig LDLo; 900 mg/kg intraperitoneal-guinea pig LDLo; 2550 mg/kg subcutaneous-guinea pig LDLo; 77 mg/kg intravenous-guinea pig LDLo; 40 mg/kg parenteral-guinea pig LDLo; 130 mg/kg intraarterial-guinea pig LDLo; 2210 mg/kg subcutaneous-pigeon LDLo; 2120 mg/kg subcutaneous-frog LDLo

ACUTE TOXICITY LEVEL:

Moderately Toxic: ingestion

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: gastrointestinal disorders, heart or cardiovascular disorders, hormonal disorders, kidney disorders

MUTAGENIC DATA:

mutation in microorganisms - Salmonella typhimurium 100 ug/plate (+/-S9); mutation in microorganisms - Saccharomyces cerevisiae 2500 mmol/L (-S9); gene conversion and mitotic recombination - Saccharomyces cerevisiae 400 mmol/L; sex chromosome loss and non disjunction - Saccharomyces cerevisiae 300 mmol/L; unscheduled DNA synthesis - rat oral 1500 ug/kg; mutation in microorganisms - mouse lymphocyte 2048 mg/L (+S9); DNA damage - hamster ovary 260 mmol/L; cytogenetic analysis - hamster lung 12 gm/L; cytogenetic analysis - hamster ovary 140 mmol/L; sister chromatid exchange - hamster ovary 180 mmol/L

ADDITIONAL DATA: Interactions with drugs may occur.

May also affect potassium levels with resultant disturbances in the heart rhythm.

HEALTH EFFECTS:

INHALATION:

ACUTE EXPOSURE:

POTASSIUM CHLORIDE: May cause irritation.

CHRONIC EXPOSURE:

POTASSIUM CHLORIDE: Inhalation in potassium mines and plants has been reported to result in lesions of the nasal septum due to potassium chloride.

SKIN CONTACT:

ACUTE EXPOSURE:

POTASSIUM CHLORIDE: May cause slight irritation.

CHRONIC EXPOSURE:

POTASSIUM CHLORIDE: No data available.

EYE CONTACT:

ACUTE EXPOSURE:

POTASSIUM CHLORIDE: May cause irritation. Tested in rabbit eyes, application of 500 mg for 24 hours resulted in mild irritation. Concentrated solutions may cause a stinging sensation.

CHRONIC EXPOSURE:

POTASSIUM CHLORIDE: No data available.

INGESTION:

ACUTE EXPOSURE:

POTASSIUM CHLORIDE: May cause gastrointestinal irritation with nausea, vomiting, epigastric distress, abdominal discomfort, and diarrhea. High local concentrations in the gastrointestinal tract may cause esophageal ulceration, if there is dysphagia; gastric ulceration, especially if gastric emptying is delayed; and ulceration, obstruction, hemorrhaging and perforation of the small bowel. Acute intoxications orally are uncommon since large doses usually induce vomiting and normally functioning kidneys excrete potassium rapidly. However, if an overdose results in hyperkalemia there may be paresthesias, anesthetics, generalized weakness, hyporeflexia, flaccid paralysis, listlessness, apprehension, vertigo, mental confusion, hypotension, slow, weak pulse, cardiac arrhythmias, heart block, and possible death. Animals poisoned by potassium salts died from respiratory failure sometimes following convulsions and accompanied by gastroenteritis, dehydration of organs and early renal tubular necrosis. Survivors had anorexia, polydipsia, polyuria, fever, convulsive movements and gastrointestinal disturbances during the first 24 hours, but recovered rapidly.

CHRONIC EXPOSURE:

POTASSIUM CHLORIDE: Repeated and prolonged ingestion of excessive amounts may cause effects as in acute exposure. Skin rashes have been reported rarely.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

FISH TOXICITY: 485000 ug/L 96 hour(s) LC50 (Mortality) Mosquitofish
(Gambusia affinis)

INVERTEBRATE TOXICITY: 93000 ug/L 48 hour(s) EC50 (Immobilization) Water
flea (Daphnia magna)

ALGAL TOXICITY: 350000 ug/L 3-4 month(s) (Population Growth) Green algae
(Chlorella vulgaris)

OTHER TOXICITY: 470000 ug/L 6 hour(s) (Mortality) Frog (Rana breviceps)

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

SECTION 14 TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: No classification assigned.

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: No classification assigned.

LAND TRANSPORT ADR/RID: No classification assigned.

AIR TRANSPORT IATA/ICAO: No classification assigned.

MARITIME TRANSPORT IMDG: No classification assigned.

SECTION 15 REGULATORY INFORMATION

U.S. REGULATIONS:

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):
Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):
Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):
ACUTE: No
CHRONIC: No
FIRE: No
REACTIVE: No
SUDDEN RELEASE: No

SARA TITLE III SECTION 313 (40 CFR 372.65): Not regulated.

OSHA PROCESS SAFETY (29CFR1910.119): Not regulated.

STATE REGULATIONS:

California Proposition 65: Not regulated.

CANADIAN REGULATIONS:

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WHMIS CLASSIFICATION: Not determined.

EUROPEAN REGULATIONS:

EC CLASSIFICATION (CALCULATED): Not determined.

GERMAN REGULATIONS:

WATER HAZARD CLASS (WGK):

STATE OF CLASSIFICATION: VwVwS

CLASSIFICATION UNDER HAZARD TO WATER: 1

NATIONAL INVENTORY STATUS:

U.S. INVENTORY (TSCA): Listed on inventory.

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

SECTION 16 OTHER INFORMATION

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